

MASTER USE PERMIT #3012748: PUMP STATION 39 EMERGENCY STANDBY GENERATOR INSTALLATION PROJECT (5080 Beach Drive SW)

Presented by:

**Luis Ramirez
Project Manager**

**Young Kim
Project Engineer**



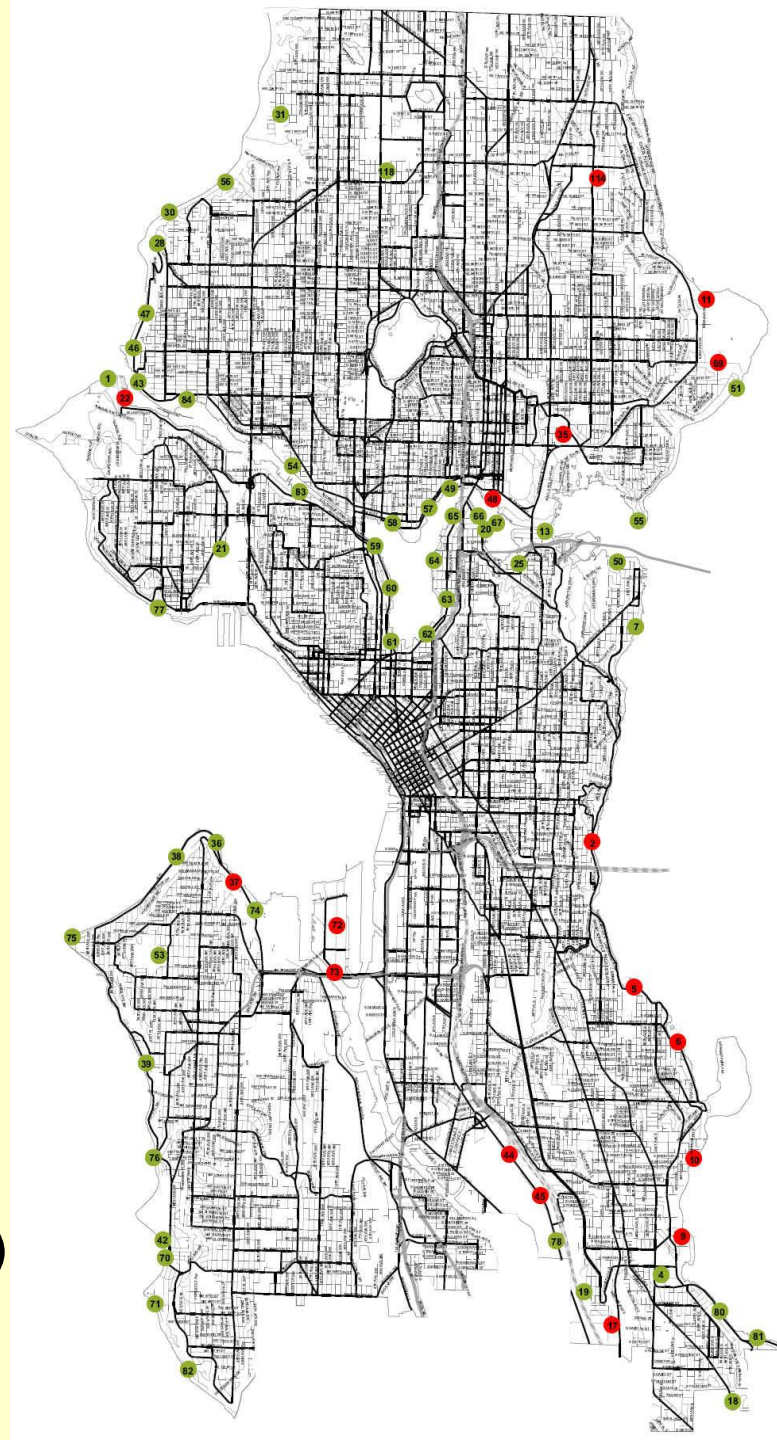
SEATTLE PUBLIC UTILITIES

PURPOSE OF BRIEFING

- 1) Introduce SPU's Wastewater Pump Station (PS) Asset Management Program**
- 2) Summarize Combined Sewer Overflow (CSO) Regulatory Compliance**
- 3) Describe PS 39 setting and circumstances**
- 4) Describe siting challenges for this project**
- 5) Discuss SPU's Request for Council Waiver of Four Applicable Development Standards**

SPU PUMP STATION ASSETS

- 68 pump stations
- Mostly underground
- All within municipal limits
- Continuous wastewater conservancy even during power outages
- Emergency power:
 - 17: permanent generator (●)
 - 40: emergency plugs (portable generator)
 - 11: hard-wire to portable generator



CSO REGULATORY COMPLIANCE

- NPDES Waste Discharge Permit # WA0031682
- USEPA Administrative Order (Sept 2009)

"...combined sewer overflows (CSO) that reach waters of the State are prohibited..."

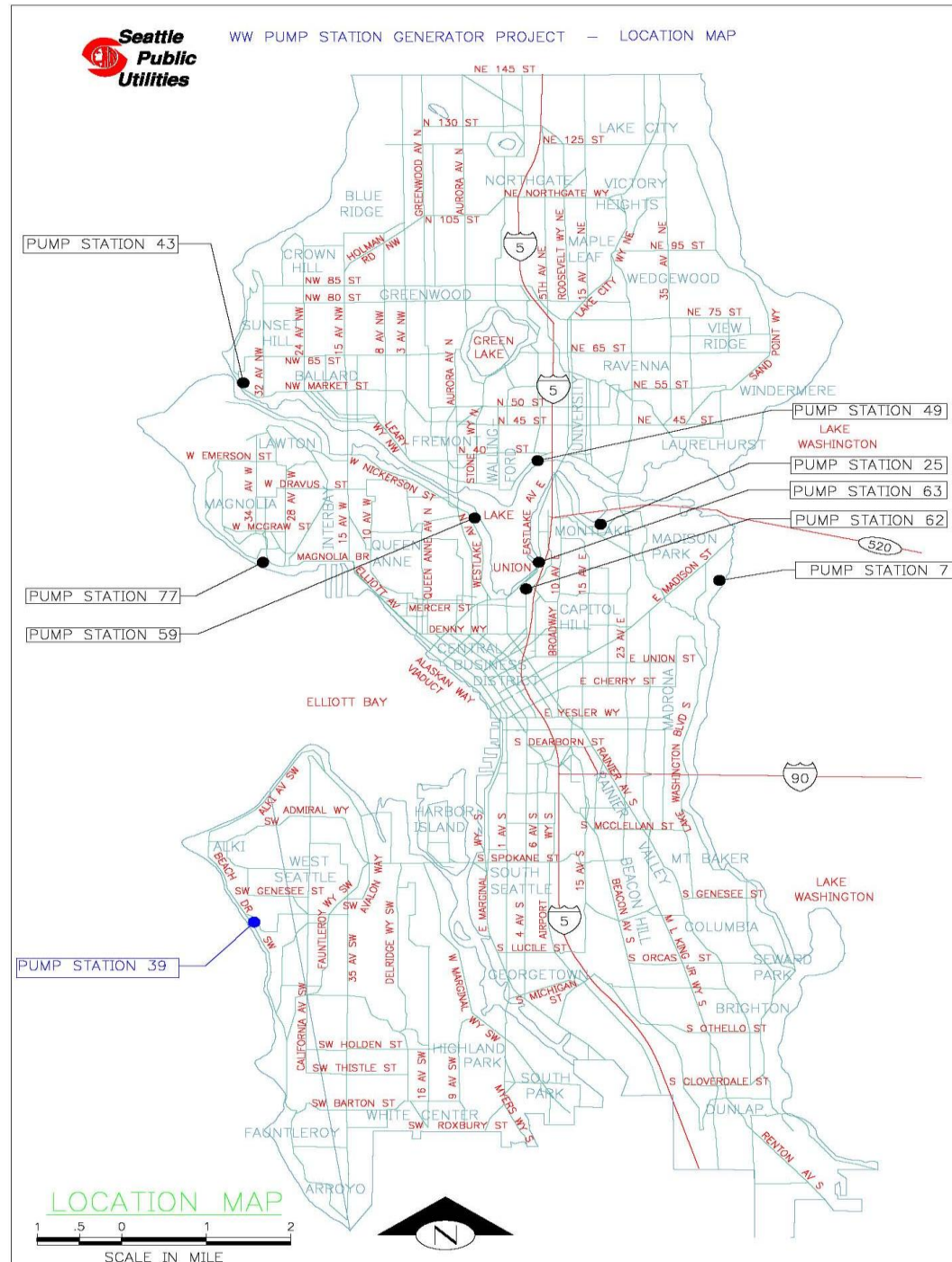
"...achieve the greatest reasonable reduction of CSOs at the earliest possible date..."

"...must ensure that safeguards prevent CSOs during electrical power failures..."

PUMP STATION BACKUP GENERATOR EVALUATION REPORT (Dec 2009)

- **SPU determined 9 of 68 PSs required addition of a permanent generator to reduce risk of overflows during power outages.**
- **In 2012, generators were installed at PSs 7, 25, 39, 43, 49, 59, 62, and 63—all in rights-of-way.**
- **USEPA granted SPU an extension to December 31, 2013 to install the required permanent generator at PS 39.**

Eight Emergency Standby Generators Installed in 2012



**PS 7
Madison Park**



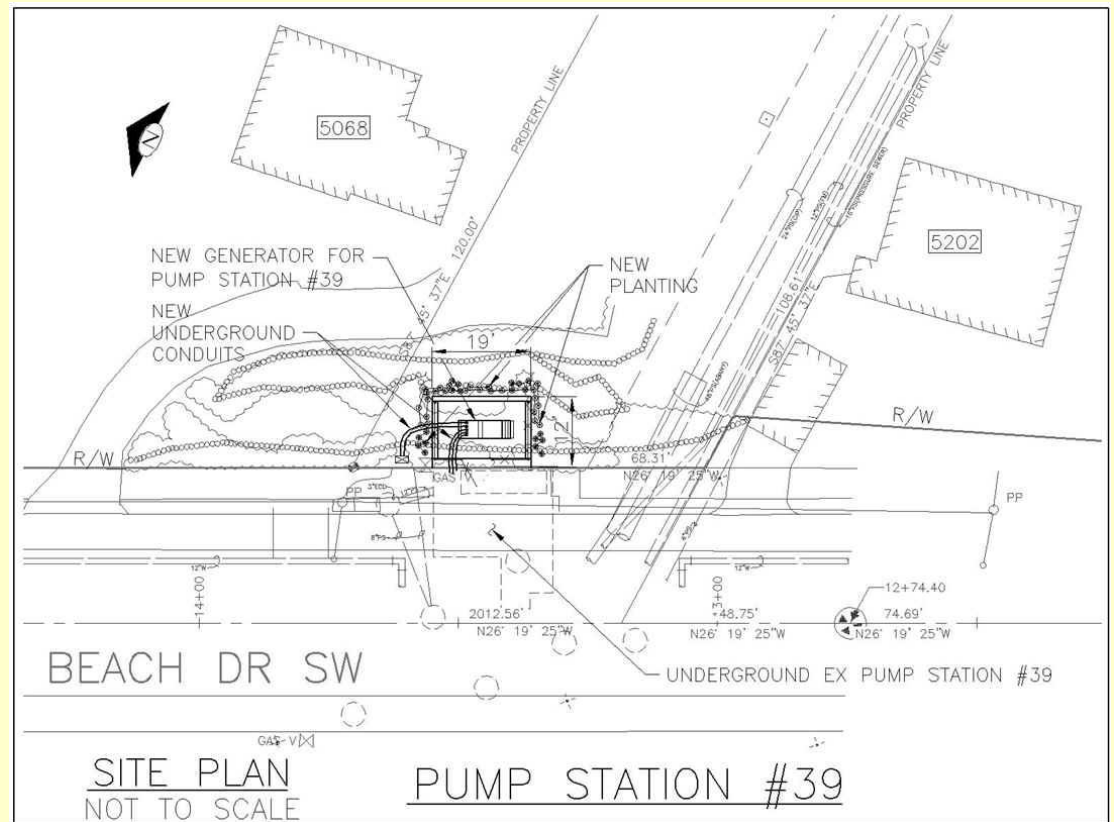
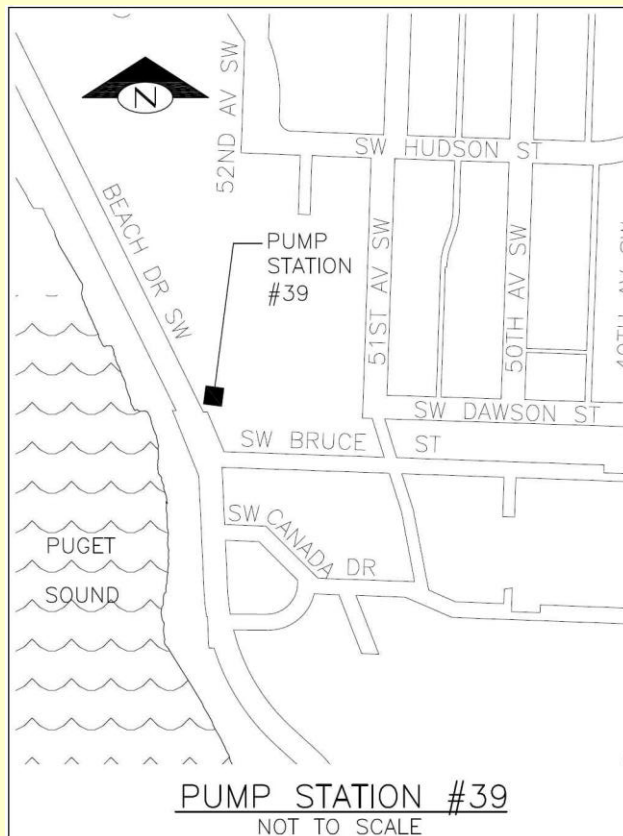
**PS 59
West Lake Union**



**PS 77
Magnolia**

PUMP STATION 39

- constructed in 1959
- underground
- overflows to Puget Sound





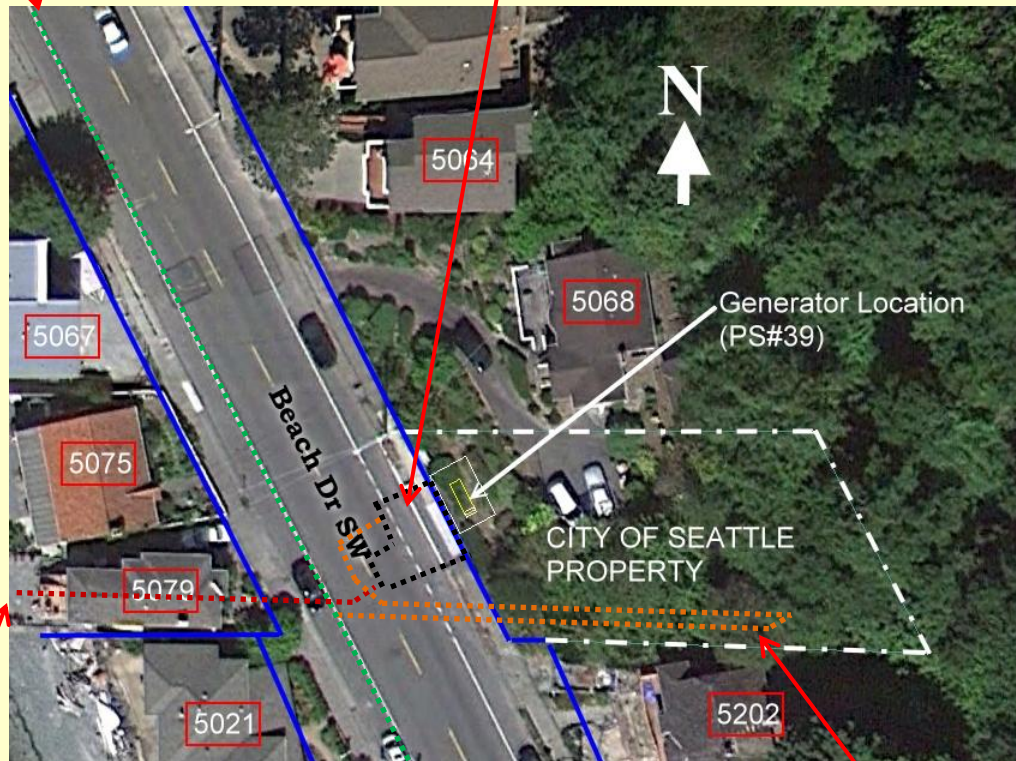
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07/11/2012

**KING COUNTY
SEWER MAIN**

PS 39 (underground)



**OVERFLOW TO
PUGET SOUND**

SPU SEWER PIPE

SITING CHALLENGES FOR PS 39 GENERATOR

- noise; aesthetics; emissions; construction in a Single Family zone
- environmentally critical areas
- construction and project costs

DESCRIPTION	PROPOSED FRONT YARD LOCATION	UNDERGROUND LOCATION	CODE-COMPLIANT LOCATION
Construction Cost w/WSS Tax	\$153,181	\$559,264	\$155,358
Soft Cost*	\$138,300	\$480,000	\$268,300
Subtotal Soft and Construction Cost	\$291,481	\$1,039,264	\$423,658
Contingency (20%)	\$58,296	\$207,853	\$84,731
Total Project Cost	\$349,777	\$1,247,117	\$508,389

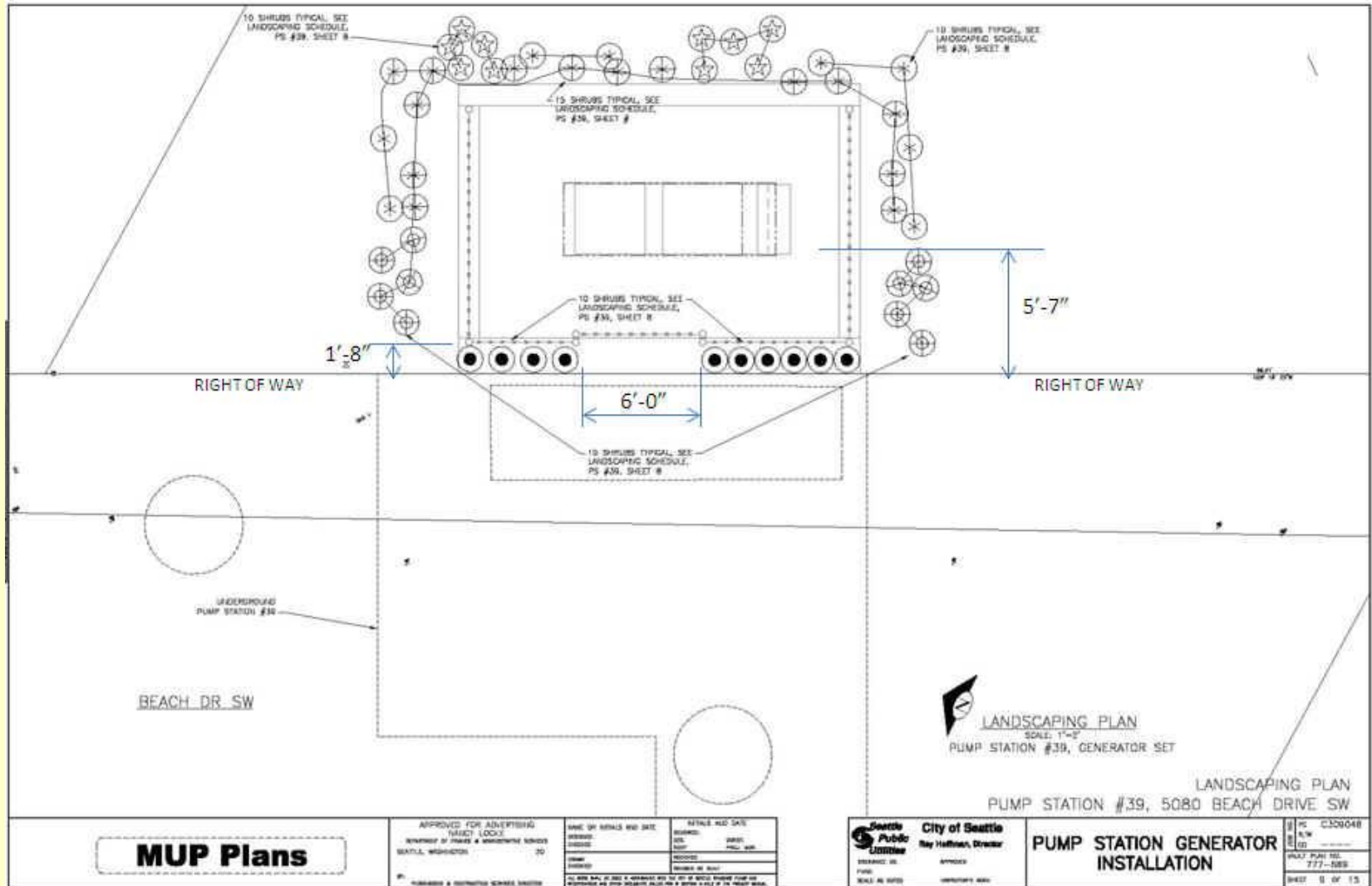
*Soft costs include project management, survey, geotechnical, basemap, engineering, construction inspection, and any other project costs not considered hard costs.



SPU REQUEST: COUNCIL WAIVER OF FOUR APPLICABLE DEVELOPMENT STANDARDS

DEVELOPMENT STANDARD	CODE REQUIREMENT	PROPOSED
1) Front Yard (SMC 3.44.014-A.1)	20' front yard setback minimum for generator	5'-7" front yard proposed for the actual generator
2) Height of Fence in Yard (SMC 23.44.014-D.10)	6' average height	8' average height
3) Location of Fence/Wall in Yard (Utility Services Uses) (SMC 23.44.022-K.2)	Fences and freestanding walls to be no closer than 10' to the street lot line	Portions of north and south retaining walls are proposed within 10' of the street lot line; western fence is proposed 1'-8" from street lot line
4) Landscaping (Utility Services Uses) (SMC 23.44.022-K.2)	Landscaping required between street lot line and fence	Provide landscaping between street lot line and fence except in the 6' access path and door from Beach Drive SW

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	INITIAL PROPOSAL	ADDITIONAL MITIGATION
ENVIRONMENTALLY CRITICAL AREAS	Construct in Potential Slide and Steep Slope ECAs	Avoid Potential Slide and Steep Slope ECAs
VISUAL	<ul style="list-style-type: none"> • Install 8' high chain link fence with green slats • Construct stairwell 	<ul style="list-style-type: none"> • Install 8' high wood fence recommended by Design Commission • No stairwell
NOISE	<ul style="list-style-type: none"> • Use standard sound-attenuating housing • Exercise generator once per week for 30 minutes around noon • Locate generator equidistant between two neighboring homes 	<ul style="list-style-type: none"> • Use additional Level II muffler • Exercise generator once per month for 30 minutes around noon • Locate generator greatest distance from two neighboring homes
CONSTRUCTION	<ul style="list-style-type: none"> • Standard construction hours: 7am to 10pm weekdays; 9am to 10pm weekends and legal holidays • No dust control 	<ul style="list-style-type: none"> • Limit construction to 8:00am to 5:00pm weekdays only • Water site and uncovered materials in trucks to control construction dust

INITIAL PROPOSAL FOR MUP



CURRENT PROPOSAL FOR MUP

